



The relationship between vulnerable narcissism and aggression in Japanese undergraduate students

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ABSTRACT

The links between narcissism and aggression have been documented in various studies. Researchers have distinguished between grandiose narcissism and vulnerable narcissism and suggested that grandiose narcissism may predict aggression. The purpose of this study was to examine the relationships between vulnerable narcissism and aggression in sample groups of Japanese undergraduate students. In Study 1, vulnerable narcissism predicted anger and hostility but did not predict physical and verbal aggression, after controlling for grandiose narcissism and self-esteem. In Study 2, when individuals with higher levels of vulnerable narcissism recalled their own experience of social rejection, they gave more aggressive evaluations of the person who provoked them. These results suggest that vulnerable narcissism could increase specific facets of aggression and increase aggression in specific situations. This study discusses the implications for personality research and clinical practice.

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1. Introduction

Over the past few decades, increased attention has been paid to narcissism among individuals in normal populations. Narcissism is a complex personality trait that includes a positive and inflated view of the self, a relative lack of intimacy, and an arsenal of self-regulatory strategies that maintain and enhance the self (Campbell & Green, 2008). Researchers have examined the trait of narcissism as a predictor of psychological health, interpersonal behavior, and emotional reactivity to daily events (Campbell & Green, 2008; Morf & Rhodewalt, 2001).

Current research on narcissism in normal populations frequently relies on the Narcissistic Personality Inventory (NPI) as a study tool. Raskin and Hall (1979) developed the NPI on the basis of the criteria for narcissistic personality disorder as described in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980). These criteria include (a) a grandiose sense of self-importance and uniqueness; (b) a preoccupation with fantasies of unlimited success, power, beauty, or ideal love; (c) exhibitionistic – requires constant attention and admiration; (d) entitlement or expectation of special favors without reciprocation; and (e) interpersonal exploitativeness. Although it is based on the DSM-III criteria, the NPI was designed specifically for use in normal populations, for which it has

been validated extensively (Morf & Rhodewalt, 2001). The vast majority of research has used the total scale score as the primary predictor variable (Bushman & Baumeister, 1998; Twenge & Campbell, 2003).

Although the NPI is the measure most commonly used by researchers to assess narcissism in normal populations, it focuses mainly on the grandiose type of narcissism rather than on vulnerable type of narcissism. The subtypes of narcissism have been examined extensively in narcissism literature (Gabbard, 1989; Kohut, 1977; Wink, 1991), and recently, there has been an increase in the studies distinguishing between grandiose and vulnerable narcissism (Lapsley & Aalsma, 2006; Rose, 2002; Zeigler-Hill, Clark, & Pickard, 2008). Grandiose narcissism is characterized by arrogance, self-absorption, a sense of entitlement, and reactivity to criticism. These characteristics are reflected in the DSM-III criteria. Grandiose narcissism is also referred to as overt narcissism and oblivious narcissism (Dickinson & Pincus, 2003). Vulnerable narcissism, on the other hand, is characterized by a lack of self-confidence and initiative, vague feelings of depression, and hypersensitivity to others' evaluations. Vulnerable narcissism is also referred to as covert narcissism, hypersensitive narcissism, and hypervigilant narcissism (Dickinson & Pincus, 2003). These two types of narcissism share certain diagnostic features. Individuals with either type are prone to grandiose fantasies and expectations about the self, a sense of entitlement, and a willingness to exploit other individuals for their own gain. Wink (1991) performed a principal component analysis on six self-reported measures of narcissism and extracted two orthogonal components:

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grandiosity-exhibitionism and vulnerability-sensitivity. The NPI was loaded on the grandiosity-exhibitionism component.

Previous studies have revealed that narcissism can be predictive of various outcomes. For example, the link between narcissism measured by the NPI and aggression has been extensively documented (Bradlee & Emmons, 1992; Emmons, 1984; Rhodewalt & Morf, 1995). Raskin and Terry (1988) examined the relationships between self-reported NPI scores and observational impression ratings. The results showed that individuals with high NPI scores tend to be rated as aggressive, autocratic, and assertive. Further, Wink (1991) revealed that the grandiosity-exhibitionism component of narcissism was significantly related to spouses' ratings of aggression, whereas the vulnerability-sensitivity component was not. From these results, researchers concluded that aggression is mainly associated with grandiose narcissism (Bushman, Baumeister, Thomaes, Begeer, & West, 2009; Wink, 1991). Individuals with higher levels of grandiose narcissism hold unrealistically high expectations of their acceptance by others and do not hesitate to act aggressively in order to maintain their inflated view of the self.

However, few studies have examined the relationship between vulnerable narcissism and aggression. Given that grandiose and vulnerable narcissism share some characteristics, for example, a sense of entitlement and the tendency to disregard others (Wink, 1991), it was anticipated that vulnerable narcissism would predict aggression just as grandiose narcissism had been shown to do. The present research examined the relationships between vulnerable narcissism and aggression in consideration of the two points described below.

First, aggression has multiple facets. Buss and Perry (1992) developed the Buss-Perry Aggression Questionnaire and found four facets of aggression – physical aggression, verbal aggression, anger, and hostility. Physical aggression and verbal aggression represent the tendency to respond to provocation with direct forms of aggressive behavior. Anger and hostility represent the affective and cognitive components of aggression. Previous studies have revealed that NPI scores predicted physical aggression, verbal aggression, and anger but not hostility (Ruiz, Smith, & Rhodewalt, 2001). No study has examined the relationship between vulnerable narcissism and the four facets of aggression. Because individuals with higher levels of vulnerable narcissism are sensitive to others' evaluations, it seems logical that they would not easily express their aggressive tendencies overtly. However, because they have a sense of entitlement and tend to disregard others (Wink, 1991), they would feel internal anger and hostility when people do not treat them with the special attention they believe they deserve. For these reasons, it was hypothesized that vulnerable narcissism would predict anger and hostility but not physical and verbal aggression. This hypothesis was tested in Study 1.

Second, the link between narcissism and aggression would be stronger in certain situations (Barry, Chaplin, & Grafeman, 2006; Bushman & Baumeister, 1998). In a series of studies, Twenge and Campbell (2003) examined the relationship between narcissism measured with the NPI and aggression in situations involving social rejection. Social rejection conditions were manipulated by having the participants write about a time when they were socially rejected or by telling the participants that no other participants chose them as a member of their group. Across four studies, it was shown that narcissism increased aggression or anger in the social rejection conditions but not in the control or social acceptance conditions in which they were informed that all the other participants chose them as a member. These results suggest that the combination of grandiose narcissism and social rejection increases aggression. However, no studies have examined whether vulnerable narcissism would increase aggression in situations of social rejection. Because individuals with higher levels of vulnerable narcissism are sensitive to others' evaluations, it seems logical that

they would be easily affected by social rejection and consequently, increase aggression in order to defend their self-worth. The hypothesis that vulnerable narcissism would predict more aggression under a social rejection condition was tested in Study 2.

In other research, an association has been found between self-esteem and aggression, although the direction of the relationship (i.e., positive or negative) has been controversial (Bushman et al., 2009; Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005). In the present research, the relationship between the two types of narcissism and aggression were examined after controlling for the effect of self-esteem.

In summary, the purpose of this research was to examine the relationship between vulnerable narcissism and aggression in greater detail. In Study 1, the relationship between the two types of narcissism and the four facets of aggression (physical aggression, verbal aggression, anger, and hostility) were examined. In Study 2, the relationship between the two types of narcissism and aggression were examined under a social rejection condition. The research focused primarily on the links between vulnerable narcissism and aggression.

2. Study 1

In Study 1, the relationships between vulnerable narcissism and the four facets of aggression (physical aggression, verbal aggression, anger, and hostility) were examined. It was hypothesized that vulnerable narcissism would predict anger and hostility but not physical and verbal aggression.

2.1. Method

2.1.1. Participants and procedure

The participants comprised 262 Japanese undergraduate students (101 men and 161 women) with a mean age of 20.09 years ($SD = 1.05$). All the participants were volunteers who were informed at the start that neither their participation nor the outcome would affect their course grades. After the orientation, they were asked to fill out a questionnaire.

2.1.2. Measures

The Hypersensitive-Grandiose Narcissism Scale was used to measure the two types of narcissism (Nakayama & Nakaya, 2006). This scale was developed on the basis of Gabbard's (1989) clinical definition of narcissistic personality disorder and Raskin and Hall's (1979) NPI items (see Appendix). It consists of two subscales of hypersensitive narcissism with eight items and grandiose narcissism with 10 items. Participants were asked to rate each item on a 5-point Likert scale ranging from 1 (*not true*) to 5 (*true*). The reliability of each subscale was verified in a sample of Japanese university students, with a Cronbach alpha of .85 for vulnerable narcissism and .80 for grandiose narcissism (Nakayama & Nakaya, 2006). In this study, the alphas for the subscales were .87 for hypersensitive narcissism and .81 for grandiose narcissism. The validity of the scale was verified through confirmatory factor analysis in a sample of Japanese university students (Nakayama & Nakaya, 2006). The descriptive scores of the subscales were calculated by averaging the item scores and were labeled as vulnerable narcissism or grandiose narcissism following Wink (1991) and Zeigler-Hill et al. (2008).

Self-esteem was measured with the Japanese version of Rosenberg's (1965) Self-Esteem Scale (10 items) developed by Yamamoto, Matsui, and Yamanari (1982). The Japanese version of the scale was carefully translated from the original version. The participants were asked to rate each item on a 5-point Likert scale ranging from 1 (*not true*) to 5 (*true*). The Cronbach alpha was .84 in this study.

The descriptive score was calculated by averaging the ten item scores.

Aggression was measured with the Japanese version of the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992) developed by Ando et al. (1999). This scale consists of four subscales of physical aggression (five items; e.g., “If somebody hits me, I hit back”), verbal aggression (six items; e.g., “I tell my friends openly when I disagree with them”), anger (five items; e.g., “I have trouble controlling my temper”), and hostility (six items; e.g., “I sometimes feel that people are laughing at me behind my back”). The participants were asked to rate each item on a 5-point Likert scale ranging from 1 (*not true*) to 5 (*true*). The reliability for each subscale was verified in a sample of Japanese university students, with Cronbach alphas ranging from .70 to .78 (Ando et al., 1999). In this study, the alphas for the subscales were .75 for physical aggression, .77 for verbal aggression, .76 for anger, and .73 for hostility. The descriptive scores of the four subscales were calculated by averaging the item scores.

2.2. Results and discussion

Descriptive statistics and Pearson correlations among the study variables are presented in Table 1. Multiple regression analyses were conducted to examine the unique effects of the two types of narcissism on aggression. Each aggression subscale was regressed simultaneously on self-esteem, vulnerable narcissism, and grandiose narcissism, while controlling for sex (Table 2). Consistent with the hypothesis, vulnerable narcissism predicted higher levels of anger and hostility. Unexpectedly, vulnerable narcissism predicted lower levels of verbal aggression. Grandiose narcissism predicted higher levels of physical aggression, verbal aggression, and anger. Self-esteem negatively predicted physical aggression, anger, and hostility.

As expected, vulnerable narcissism showed a relationship to anger and hostility. Anger and hostility represent the affective and cognitive components of aggression. Because individuals with higher levels of vulnerable narcissism are sensitive to others' evaluations, they do not necessarily express their aggressive tendencies physically or verbally. However, they also have a sense of entitlement and a tendency to disregard others (Wink, 1991). Therefore, unless other people treat them as special and important, they will easily feel anger and hostility. A negative relationship between vulnerable narcissism and verbal aggression suggests that individuals with higher levels of vulnerable narcissism have very covert and indirect forms of aggressive tendencies. The more vulnerable narcissistic individuals are, the less they use direct forms of aggression such as verbal aggression probably because of high anxiety (Lapsley & Aalsma, 2006; Wink, 1991). Instead, individuals with higher levels of vulnerable narcissism express their aggress-

Table 2

Simultaneous multiple regression of predictor variables on aggression (Study 1).

	Physical aggression	Verbal aggression	Anger	Hostility
Sex	-.26***	-.10	.04	-.24***
Self-esteem	-.15*	.13	-.14*	-.26***
Vulnerable narcissism	-.01	-.15*	.38***	.42***
Grandiose narcissism	.28***	.30***	.26***	.02
R ²	.13***	.18***	.29***	.36***

* $p < .05$.

*** $p < .001$.

sive tendencies in a more covert and indirect manner such as anger and hostility.

3. Study 2

In Study 2, the relationship between vulnerable narcissism and aggression under a social rejection condition was examined. Previous studies have manipulated social rejection and social acceptance using various methods (Baumeister & DeWall, 2005). In this study, social rejection and social acceptance were manipulated using a narrative method (Maner, DeWall, Baumeister, & Schaller, 2007; Twenge & Campbell, 2003). Participants were asked to tell a story about a time when they felt socially rejected or accepted. This technique allowed us to examine the effect of relatively realistic social rejection and acceptance.

It was expected that vulnerable narcissism would not increase overt aggressive behaviors even in the social rejection condition. For this reason, indirect aggression was measured using a negative evaluation technique. DeWall, Twenge, Gitter, and Baumeister (2009) measured aggression by giving participants the opportunity to negatively evaluate another person and thus, damage that person's chances of getting a desirable job. This constitutes a measure of aggression, because the negative evaluation had the potential to thwart the other person's personal goals and future welfare. In this study, aggression was measured by allowing participants to evaluate another individual in a hypothetical situation. The participants were asked to evaluate another person's contribution to hypothetical group tasks; they were told that their evaluation could affect the other person's course grade at the university. Because the evaluations were not reported directly to the target, the negative evaluations could be an indicator of indirect aggression. It was hypothesized that individuals with higher levels of vulnerable narcissism would give a more negative evaluation to another person, especially in the social rejection condition.

Table 1

Pearson correlations among study variables and descriptive statistics for Study 1 ($N = 262$).

	1	2	3	4	5	6	7	Mean	SD
1. Sex								–	–
2. Vulnerable narcissism	.13*							2.90	0.90
3. Grandiose narcissism	-.03	.15*						2.54	0.64
4. Self-esteem	-.10	-.41***	.43***					3.13	0.68
5. Physical aggression	-.26***	.06	.22***	-.01				2.69	0.81
6. Verbal aggression	-.14*	-.17**	.33***	.33***	.33***			2.91	0.76
7. Anger	.09	.49***	.26***	-.19**	.42***	.17**		2.85	0.83
8. Hostility	-.16**	.50***	-.02	-.40***	.30***	-.06	.42***	3.04	0.71

* $p < .05$.

** $p < .01$.

*** $p < .001$.

In Study 2, self-esteem was measured at a state level. Leary and MacDonald (2005) distinguished between trait self-esteem and state self-esteem. State self-esteem refers to how people feel about themselves at a particular moment in time, whereas trait self-esteem refers to how people generally feel about themselves. Because the aggression examined in Study 2 was a responsive aggression at a state level, state self-esteem was measured and its effect was controlled.

3.1. Method

3.1.1. Participants

The participants comprised 127 Japanese undergraduate students (42 men and 85 women) with a mean age of 19.89 years ($SD = 2.21$). All the participants were volunteers who were informed at the orientation to the study that neither their participation nor the outcome would affect their course grades.

3.1.2. Design and procedure

The measurements and manipulations were administered using a booklet. First, all the participants were asked to answer the narcissism scale. Next, the experimental conditions were manipulated. Participants were randomly assigned to one of two conditions: rejection condition ($N = 61$) and acceptance condition ($N = 66$). Those in the rejection condition were asked to write an essay about a time when they felt rejected by others, and those in the acceptance condition, about a time when they felt accepted by others. This method of manipulation has been validated in previous studies (Maner et al., 2007; Twenge & Campbell, 2003). After the participants wrote their essays, they completed the Self-Esteem Scale and the aggression measure. Finally, they were carefully debriefed and thanked for their participation.

3.1.3. Measures

In Study 2, two types of narcissism were measured with the Hypersensitive-Grandiose Narcissism Scale (Nakayama & Nakaya, 2006), as with Study 1. The Cronbach alphas for Study 2 were .84 for hypersensitive narcissism and .80 for grandiose narcissism. The descriptive scores of items were labeled as vulnerable narcissism or grandiose narcissism.

State self-esteem was measured with the State Self-Esteem Scale (nine items) developed by Abe and Konno (2007). This scale assesses self-esteem at a particular moment in time. The items were developed on the basis of Rosenberg's (1965) Self-Esteem Scale, and the words "Now I feel that..." were added at the top of each item. Participants were asked to rate each item on a 5-point Likert scale ranging from 1 (*not true*) to 5 (*true*). The reliability for each subscale was verified in a sample of Japanese university students (Cronbach alpha = .83; Abe & Konno, 2007). In this study, the alpha was .88. The descriptive score was calculated by averaging nine item scores.

A negative evaluation that would harm another person was used as an index of aggression. The negative evaluation was measured by using the following hypothetical vignette:

You engaged in a group task with other members of a university class. To complete the task, you looked up the necessary material and put as much effort into the task as your other group members did. However, a member A told you that you were not working very hard on the task. Member A also worked on the task just as hard as the rest of the group. At the end of the class, you were given the opportunity to anonymously evaluate every member's contribution to the group work. This evaluation would be reflected in their course grade. How would you evaluate member A's contribution?

Table 3

Pearson correlations among study variables and descriptive statistics for Study 2 ($N = 127$).

	1	2	3	Mean	SD
1. Vulnerable narcissism				3.04	0.83
2. Grandiose narcissism	.12			2.61	0.64
3. State self-esteem	-.43**	.39**		3.28	0.81
4. Aggression	.19*	-.01	-.05	2.64	0.97

* $p < .05$.

** $p < .001$.

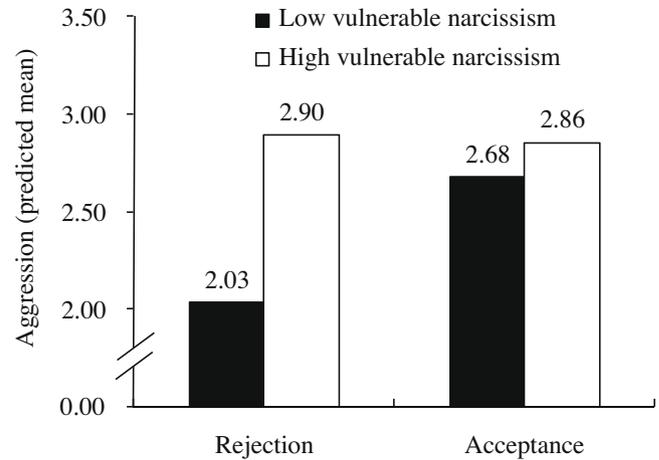


Fig. 1. Predicted mean scores of aggression as a function of experimental conditions and vulnerable narcissism (Study 2).

The participants evaluated member A's contribution on a 5-point scale ranging from 1 (member A did not contribute at all) to 5 (member A contributed a great deal). In subsequent analyses, the score was reversed so that the higher score represented higher levels of aggression.

3.2. Results and discussion

Descriptive statistics and Pearson correlations among variables are presented in Table 3. Aggression did not vary with sex, $t(125) < 1$, $p = .59$. Because the sample size of this study was relatively small, the participants were dichotomized on the basis of the medians of the two narcissism scores: high ($N = 64$) vs. low ($N = 63$) vulnerable narcissism and high ($N = 66$) vs. low ($N = 61$) grandiose narcissism.

A 2 (rejection vs. acceptance) \times 2 (high vs. low vulnerable narcissism) \times 2 (high vs. low grandiose narcissism) analysis of covariance, with self-esteem as a covariate was performed for aggression. The analysis revealed the main effect of vulnerable narcissism, $F(1, 118) = 7.68$, $p < .01$. However, this main effect was qualified with experimental conditions, $F(1, 118) = 3.93$, $p < .05$. The simple main effect of vulnerable narcissism was significant in the rejection condition, $F(1, 118) = 10.21$, $p < .01$, but not in the acceptance condition, $F(1, 118) < 1$, $p = .45$. In the rejection condition, individuals with high levels of vulnerable narcissism were more aggressive than those with low levels of vulnerable narcissism (Fig. 1).

Individuals with higher levels of vulnerable narcissism are easily affected by social rejection because they are hypersensitive to others' evaluations. DeWall et al. (2009) found that hostile cognition mediated the relationships between social rejection and aggression. Individuals with higher levels of vulnerable narcissism

would feel more hostility after remembering their own socially rejected experience, and thus, they would tend to more negatively evaluate a person who provoked them.

4. General discussion

The purpose of this research was to examine the relationship between vulnerable narcissism and aggression in two samples of Japanese undergraduate students. Most notable finding of this research is that although vulnerable narcissism surely leads to aggression, the aggression is expressed in a covert and indirect manner. Individuals with higher levels of vulnerable narcissism express indirect forms of aggression such as anger and hostility instead of direct forms aggression such as physical and verbal aggression (Study 1) and negatively evaluated others in a manner that the evaluations are not reported directly to the target (Study 2). Previous studies have highlighted the links between grandiose narcissism and aggression (Bushman et al., 2009; Emmons, 1984; Wink, 1991) and have paid little attention to the links between vulnerable narcissism and aggression. This research is one of the first to suggest the links between vulnerable narcissism and indirect aggression. Future research should focus on the indirect forms of aggression to find the relationships between vulnerable narcissism and aggression.

In Study 1, grandiose narcissism predicted physical aggression, verbal aggression, and anger but not hostility. These results are consistent with the results of previous studies (Ruiz et al., 2001). However, in Study 2, individuals with higher levels of grandiose narcissism were not aggressive in a social rejection condition. This result is inconsistent with the results of studies using the NPI (Twenge & Campbell, 2003). This difference may be partly due to the index of aggression. Twenge and Campbell (2003) used an aggression variable that involved administering varying degrees of blasts of unpleasant noise. The negative evaluation used as an index of aggression in this study seems to be a relatively mild aggression measure. Individuals with higher levels of grandiose narcissism may respond to activities that allow them to provoke others with excessive aggressive behaviors.

Self-esteem negatively predicted physical aggression, anger, and hostility in Study 1 and was not related to the negative evaluation in Study 2. Although the relationship between self-esteem and aggression has been controversial (Bushman et al., 2009; Donnellan et al., 2005), the results of this research suggest that self-esteem suppresses or is not related to aggression.

The present findings lend themselves to a suggestion for clinical practice. In clinical psychology literature, it has been suggested that vulnerable narcissists characteristically exhibit depression, anxiety, and a lack of self-confidence (Gabbard, 1989; Wink, 1991). However, the present research suggested that they have aggressive tendencies and express them in an indirect or covert manner. This indirect aggression could worsen their interpersonal relationships, leading to increased depression in the individual with vulnerable narcissism. For this reason, practitioners and clinicians should pay special attention to the aggressive tendencies of individuals diagnosed as or suspected to be vulnerable narcissists.

There are some limitations to the present research. First, it examined direct aggression but not displaced aggression. In prior aggression research literature (e.g., Bushman & Baumeister, 1998), researchers have distinguished between direct aggression (i.e., retaliation toward the source of provocation) and displaced aggression (i.e., aggression toward innocent others who are irrelevant to the provocation incident). In Study 1, aggression was measured with the Buss–Perry Aggression Questionnaire, which does not distinguish between direct aggression and displaced aggression. In Study 2, the participants directly evaluated the person

who provoked them in a hypothetical situation. Therefore, the relationship between vulnerable narcissism and displaced aggression remains unclear. Second, the social rejection condition was manipulated using a narrative method. Although the narrative method has been validated in previous studies (Maner et al., 2007; Twenge & Campbell, 2003) and serves as a reminder to the participants of their own experiences of social rejection, they are not actually in a situation of rejection during the study. Various experimental manipulation techniques have been developed to induce social rejection (Baumeister & DeWall, 2005). Future studies should examine whether the present findings would be replicated using other methods to manipulate social rejection.

Appendix A

Items for Hypersensitive-Grandiose Narcissism Scale (Nakayama & Nakaya, 2006)

Hypersensitive narcissism

1. I feel that I am a worthless person unless people pay attention to my opinion and behavior.
2. I worry if other people make a fool of me.
3. I sometimes get so mad when other people look down on me.
4. I worry if other people think me strange.
5. I feel as if my whole self was denied when other people point out my faults or mistakes.
6. I feel depressed when other people point out my faults or mistakes.
7. I am very upset when other people criticize my faults or mistakes.
8. I do not have any confidence unless superior others admit me.

Grandiose narcissism

1. People just naturally gravitate toward me.
2. If I ruled the world it would be a much better place.
3. I have more special experiences than other people.
4. I think I am a special person.
5. I insist upon getting the respect that is due me.
6. I am an extraordinary person.
7. I like to show off my body.
8. I am witty and clever.
9. I will be a success.
10. I have confidence in my idea and sensibility.

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